

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-97 canceled.

Claim 98 (currently amended): A recombinant nucleic acid encoding a chimeric protein, the chimeric protein comprising:

a first ~~peptidyl~~ peptide fragment of from 20 amino acids in length to 92 amino acids in length and having an amino acid sequence which is identical to an N-terminal amino acid sequence of SEQ ID NO: 2 of the same length as the first peptide fragment or having an amino acid sequence which differs by one or two residues from the N-terminal sequence of SEQ ID NO:2 of the same length as the first peptide fragment;

~~a second peptidyl fragment comprising a human insulin precursor~~ peptide fragment consisting of the B and A chains of human insulin wherein the B and A chains are separated by removable connecting moiety, wherein the removeable connecting moiety consists of an amino acid residue or a peptide fragment consisting of 2 to 34 amino acid residues; and

an arginine amino acid residue, a lysine amino acid residue, or at least one cleavable ~~peptidyl peptide~~ fragment linking the first and human insulin precursor ~~second peptidyl peptide~~ fragments;

wherein the first ~~peptidyl peptide~~ fragment having sufficient amino acid sequence homology to at least a first 20 N-terminal amino acids of human growth hormone (hGH) protein that the first ~~peptidyl fragment~~ is capable of mediating, upon contacting of the chimeric protein with a chaotropic agent, the formation mediates formation of a correctly folded conformation of the human insulin precursor peptide fragment. the bioactive conformation of the second ~~peptidyl~~ fragment.

Claims 99 to 101 (canceled).

Claim 102 (currently amended): The nucleic acid according to claim 98, wherein the first peptidyl peptide fragment comprises the amino acid sequence of SEQ ID NO:2.

Claim 103 (currently amended): The nucleic acid according to claim 98, wherein the cleavable first peptidyl peptide fragment comprises the amino acid sequence of SEQ ID NO:3.

Claim 104 (currently amended): The nucleic acid according to claim 98, wherein the first peptidyl peptide fragment is between 20 and 49 200-residues in length.

Claims 105-108 (canceled).

Claim 109 (currently amended): The nucleic acid according to claim 98, wherein the human insulin precursor second peptidyl peptide fragment comprises the amino acid sequence of SEQ ID NO:4.

Claim 110 (currently amended): The nucleic acid according to claim 98, wherein the human insulin precursor second peptidyl peptide fragment comprises the amino acid sequence of SEQ ID NO:5.

Claims 111 (currently amended). The nucleic acid according to claim 98, ~~wherein the second peptidyl fragment, wherein an arginine or lysine residue separates the B chain from the A chain, comprises the A chain and B chain of human insulin are separated by amino acid sequence between 1 and 34 residues in length.~~

Claims 112 to 113 (canceled).

Claim 114 (currently amended): The nucleic acid according to claim 98, wherein the first peptide fragment and the human insulin precursor fragment are linked by the arginine or lysine amino acid residue. ~~cleavable peptidyl peptide fragment is an Arg or Lys residue.~~

Claim 115 (currently amended): The nucleic acid according to claim 98, wherein the cleavable peptidyl peptide fragment is at least 2 amino acids in length and ~~where~~ the C-terminal amino acid residue thereof is selected from the group consisting of Arg and Lys.

Claim 116 (previously presented): The nucleic acid according to claim 98, wherein the chimeric protein comprises the amino acid sequence of SEQ ID NO:6.

Claim 117 (previously presented): The nucleic acid according to claim 98, wherein the protein comprises the amino acid sequence of SEQ ID NO:7.

Claim 118 (previously presented): A cell comprising the nucleic acid of claim 98, wherein the cell expresses the chimeric protein.

Claims 119 to 122 (canceled).

Claim 123 (currently amended): The cell according to claim 118 wherein the cleavable first peptidyl peptide fragment comprises the amino acid sequence of SEQ ID NO:3.

Claim 124 (currently amended): The cell according to claim 118 wherein the first peptidyl peptide fragment is between 20 and 49 ~~200~~ residues in length.

Claims 125 - 128 (canceled).

Claim 129 (currently amended): The cell according to claim 118 wherein the human insulin precursor second peptidyl peptide fragment comprises the amino acid sequence of SEQ ID NO:4.

Claim 130 (currently amended): The cell according to claim 118 wherein the human insulin precursor second peptidyl peptide fragment comprises the amino acid sequence of SEQ ID NO:5.

Claim 131 (currently amended): The cell according to claim 118 wherein ~~the second peptidyl fragment~~, an arginine or lysine residue separates the B chain from the A chain. ~~comprises the A chain and B chain of human insulin are separated by amino acid sequence between 1 and 34 residues in length.~~

Claims 132 - 133 (canceled).

Claim 134 (currently amended): The cell according to claim 118 wherein the first peptide fragment and the human insulin precursor fragment are linked by the arginine or lysine amino acid residue. ~~cleavable peptidyl fragment is an Arg or Lys residue.~~

Claim 135 (currently amended): The cell according to claim 118 wherein the cleavable ~~peptidyl~~ peptide fragment is at least 2 amino acids in length where the C-terminal amino acid residue is selected from the group consisting of Arg and Lys.

Claim 136 (previously presented): The cell according to claim 118 wherein the protein comprises the amino acid sequence of SEQ ID NO:6.

Claim 137 (previously presented): The cell according to claim 118 wherein the protein comprises the amino acid sequence of SEQ ID NO:7.

Claim 138 to 140 (canceled).

Claim 141 (previously presented): The cell of claim 118, wherein the cell is a bacterial cell.

Claim 142 (previously presented): The cell of claim 118, wherein the cell is a mammalian cell.

Claims 143 to 144 (canceled).

Claim 145 (new). The nucleic acid of claim 98, wherein the chimeric protein is identical in amino acid sequence to the amino acid sequence of SEQ ID NO:6 or of SEQ ID NO:7.

Claim 146 (new). The cell according to claim 118 wherein the chimeric protein is identical in amino acid sequence to the amino acid sequence of SEQ ID NO:6 or of SEQ ID NO:7.